DNBI Update

18th MEDCOM Preventive Services Directorate

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18th MEDCOM Preventive Services Directorate
Bldg 5477, SP
DSN: 736-3025

Smallpox Vaccine: What Providers Need to Know

Because of the increased threat of bioweapon use, smallpox vaccination has been much discussed in the lay media recently. The DoD Smallpox Preparedness Plan was approved in September 2002.

Civilian and selected DoD pre-event vaccination programs may be expected to begin as early as mid-December, pending vaccine availability.

One million doses of smallpox vaccine were recently licensed by the FDA and are expected to be released for use very shortly.

With the publicity surrounding smallpox vaccination comes much confusion. The purpose of this article is to introduce basic information regarding the vaccine to healthcare providers.

As details regarding the implementation of a vaccination program within USFK are developed, they will be released. It is important, however, for all providers to understand the components of the vaccine, administration techniques and possible side effects.

History of Smallpox Vaccinations

Until naturally-occurring smallpox disease was eliminated in the 1970's,

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Tobacco Cessation: Recent Successes

In the last year, over 400 people attended the smoking cessation course offered through the Health Promotion section.

Nearly half chose to use either Zyban or nicotine replacement therapy to further assist them in quitting, with the majority choosing Zyban over nicotine replacement.

Follow-up interviews with course attendees were conducted one month, three months and six months after the course concluded.

Unfortunately, due to the high personnel turnover, the majority of attendees were not able to be contacted. Despite this, initial results are promising. At one month, 70% of respondents reported they had not resumed using tobacco.

And by six months, 42% of respondents reported they were still tobacco-free.

While at first glance these numbers may suggest the program is less than effective, providers should keep in mind that multiple attempts at quitting are necessary for most people to remain tobacco-free.

The new Tobacco Use Cessation Clinical Practice Guidelines are being implemented here within 18th MEDCOM to further beneficiaries in their attempts to quit.

For more information on this Guideline, contact Ms. Lisa White, Utilization Management at DSN 737-3010. ⌘

Only clean water has saved more lives than vaccines.

Smallpox Vaccine

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the disease has played a significant role in military history.

Because our troops weren't protected against smallpox, we lost the Battle of Quebec in 1776.

5,500 smallpox casualties occurred among 10,000 colonial troops, including the task force commander, MG John Thomas.

The next year, General George Washington chose to protect his remaining troops from smallpox using a forerunner of vaccination called variolation, which used actual smallpox virus from persons with very mild cases. While many providers and soldiers today have minimal working knowledge of or experience with smallpox vaccine, it is important to remember that Army-wide smallpox vaccination was continued well into the 1970's and 1980's. Israel has recently reintroduced military-wide smallpox vaccination program with good results.

The Smallpox Vaccine

The smallpox vaccine consists of live vaccinia virus, NOT smallpox (variola) virus.

Immunity to vaccinia also protects against variola, and is much safer.

Intraepidermal inoculation via a technique called 'scarification' is adequate for immunity to develop. Boosters are required at least every 10 years.

Because it is a live virus, viral reproduction occurs at the inoculation site. The site progresses from a papule to a vesicle to a pustule, usually within 6-8 days. The development of a pustule indicates that the vaccination has 'taken,' that is, has successfully induced immunity. Any other reaction is considered non-take, and requires reinoculation. By approximately 12 days after immunization, a scab forms at the immunization site and falls off within about 17-20 days after immunization, leaving the traditional scar.

Common side effects include low-grade fever, myalgias and malaise. This is usually seen at 6-8 days post-vaccination, or at 10-12 days post-vaccination.

Lymphadenopathy, localized lymphangitis, and surrounding intense erythema are usual, and typically do not indicate cellulitis.

Contraindications to Smallpox Vaccination

The contraindications to smallpox vaccine depend upon the circumstances under which the vaccine is to be given, based on the risk-benefit associated with receiving the vaccination.

Under current guidelines, there are several contraindications in the pre-event scenario.

However, should actual smallpox cases occur (ie, post-event scenario), there are no longer any contraindications.

Diseases that disrupt the epidermis are the most important contraindications to smallpox vaccination in the pre-event scenario.

Examples include: atopic dermatitis, psoriasis, eczema, uncontrolled severe acne and more.

The vaccine is contraindicated if these skin conditions (or a history thereof) exists in the person to be vaccinated OR in any household contacts UNLESS the person can make alternate living arrangements until the vaccine site scab falls off naturally.

The only deaths related to smallpox vaccination during the 1960's occurred from progressive vaccinia which developed in household contacts [of vaccine recipients] who had either active atopic dermatitis or a history of the disorder.

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Smallpox Vaccine

Continued from page 2

Pregnancy, including pregnant household contacts, is a temporary contraindication to vaccination.

Vaccination Procedure

Screening

All potential recipients must be screened for current rashes, and a history of skin disease.

Pregnancy must be ruled out in females, either by history or by testing if desired.

Administration

The vaccination is administered at the left deltoid region. Obviously dirty skin may be washed with water, but must be allowed to dry thoroughly.

No alcohol use is required; if used, it MUST dry thoroughly or it will inactivate the vaccine material.

Scarification, using 2.5µl of the reconstituted vaccine material, is done using a bifurcated needle. Depending on needle availability, they may be discarded or possibly sterilized for reuse.

Persons having never, ever received a smallpox vaccine before will receive three needle 'sticks.'

All others will be given 15 sticks. A bandage may be loosely applied to the vaccine site.

Documentation

The date of the vaccination must be recorded in the patient chart, in MODS, and on the yellow shot record. Space should be left to allow an assessment of 'take.'

All vaccine recipients must be evaluated between days 6-8 for vaccination 'take.'

If any reaction other than the normal progression is seen, the person should be revaccinated at that time, then re-evaluated in another 6-8 days. All revaccinations will be done with 15 sticks.

Site Care

Prior to leaving the immunization clinic, each and every vaccine recipient must be thoroughly educated on caring for the vaccine site.

The site should NOT be touched; hands should be THOROUGHLY washed whenever contact of any degree with the site occurs. The site may be LOOSELY covered with a bandage; adhesive sites should be alternated or rotated to prevent skin irritation.

Leaving the site uncovered allows for speedier healing; covering the site is recommended for healthcare workers while on the job, and for everyone else anytime activities may cause accidental exposure.

Any dressing used at a vaccine site MUST be placed in a ziplock-type bag for disposal in the trash. Hands must be washed between removing the bandage and reapplying another, and again after bandage reapplication.

Vaccine recipients may not swim/hot tub/Jacuzzi until the scab falls off on its own. Participation in contact sports is not recommended.

Evaluation of 'Take'

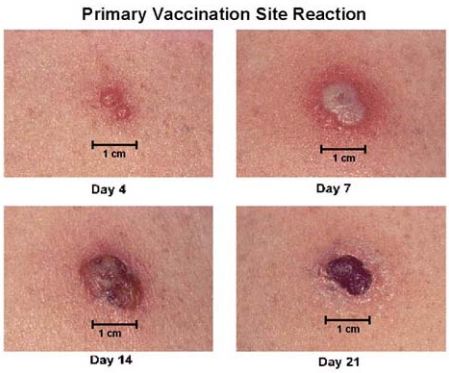
At least three attempts at vaccination should be made. If there is no evidence of 'take' after the second attempt, vaccination site may be changed to the anterior upper thigh.

Additional Information:

Much good information regarding the smallpox vaccine is available on the Internet. Highly recommended sites include:

http://www.vaccines.army.mil

http://www.bt.cdc.gov/agent/smallpox/index.asp: contains extensive training and educational materials, including information on vaccine administration, normal responses, and adverse effects. ⌘



Typical progression of smallpox vaccination site

The last recorded naturally occurring case of smallpox occurred in Somalia in 1977.

Questions and Answers About Smallpox Vaccine

Typical progression of smallpox disease in a patient who recovered

Q: What is smallpox?

A: Smallpox is a serious and contagious disease caused by a virus called 'variola.' It can spread from person to person through close contact.

Smallpox can cause a severe rash and permanent scarring, high fever, severe headache and backache, blindness and possibly death.

It is possible that terrorists or governments hostile to the United States might have some of the virus. If so, they could release it as a biological weapon and cause an epidemic.

Q: What's in the smallpox vaccine?

A: Smallpox vaccine is made from a virus called vaccinia. Immunization with vaccinia virus keeps people from getting smallpox.

Q: Who should get the vaccination?

A: The first stage of the vaccine program is to immunize healthcare workers and emergency responders. Eventually most all of the military may receive the vaccine.

Q: Who should not get the vaccine?

A: People with eczema or atopic dermatitis, now or in the past.

People with other rashes, injuries or burns should wait until they are healed or cleared up before getting the vaccine.

Pregnant women should not get the vaccine. People with HIV and other immune system problems should not get the vaccine.

People living in the same household with someone who has any of these conditions may need special considerations if they must get the shot.

Also, anyone who has ever had a severe allergic reaction to polymyxin B, streptomycin, chlortetracycline, neomycin, or a previous dose of smallpox vaccine should not get the vaccination.

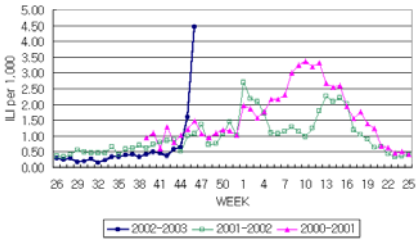
Q: What are the risks from smallpox vaccine?

A: The vaccine is supposed to produce a blister at the site. Some people will develop swollen tender lymph nodes in their armpit.

Some people will have a mild fever. If you're not careful, you may spread the blisters to other body parts or to other people.

If you develop any worrisome signs, you should seek medical care. ⌘

Outbreak of Influenza-Like Illness in Korea



Graph illustrating rates of influenza-like illness 2000-2002

The Korean civilian population is seeing an early and dramatic increase in reports of influenza-like illness (ILI) beginning approximately week 44.

Delayed delivery of the influenza vaccination is felt to play a part in this outbreak. Typically Korea sees an increase in cases late in the influenza season (see figure).

To date, the Korean Ministry of Health has isolated 11 influenza viruses. Seven isolates were type A and four were type B. One of the viruses was identified as A/Panama/2007/99, (H3N2), which is the same as the A/Moscow/10/99, (H3N2) covered in this year's vaccine. Further identification of the other isolates has not yet been completed.

This increase in respiratory illness has also been seen in 18th MEDCOM clinics and was detected by the DoD disease surveillance system ESSENCE.

Units are encouraged to arrange their influenza shot dates as soon as possible to limit the spread of disease. ⌘

18th MEDCOM Reportable Events Program

Selected Reportable Events Incidence Summary

OCT 2002

Reportable Condition	Area I	Area II	Area III	Area IV	Totals
Trichomonas	NR	NR	NR	NR	NR
Chlamydia	12	19	10	12	53
Herpes simplex	0	0	0	0	0
Gonorrhea	3	6	2	2	13
Syphillis	0	0	0	0	0
HIV	0	0	0	0	0
STD Totals	15	25	12	14	66
Tuberculosis (active disease)	0	0	0	0	0
Tuberculosis (recent converter)	19	20	4	3	46
Heat Injury	0	0	0	0	0
Cold Injury	1	0	0	0	1

NR=None Reported

Conditions		Oct 2002	Cum 2002	Cum 2001
STD	Chlamydia	53	436	45
	Gonorrhea	13	139	26
	Herpes Type II	0	22	2
	HIV/AIDS	0	4	0
	Trichomonas	0	13	0
	Syphilis	0	1	1
Infectious Diseases	Campylobacter	0	2	0
	Cholera	0	0	0
	E.Coli 0157:H7	0	0	0
	Encephalitis	0	0	0
	Giardiasis	0	0	0
	Hepatitis A	0	1	0
	Hepatitis B	0	3	0
	Hepatitis C	0	0	0
	Influenza	0	0	0
	Measles	0	0	0
	Meningoccal Meningitis	0	0	1
	Pneumococcal Pneumonia	0	0	0
	TB, Active	0	5	2
	PPD Conversion	46	296	19
	Salmonellosis	0	7	3
	Shigellosis	0	0	0
	Typhoid Fever	0	0	0
	Varicella, adult	0	1	2
Vector-borne Diseases	Dengue Fever	0	0	0
	Ehrlichiosis	0	0	0
	HFRS	0	0	0
	Japanese Encephalitis	0	0	0
	Leptospirosis	0	0	0
	Malaria+	1 ROK; 1 US	19* ROK; 21 US	12 ROK; 17 US
	Rabies	0	0	0
	Scrub Typhus	0	0	0
Injuries	Animal Bites	0	12	17
	Cold Injury	1	4	6
	Heat Injury	0	5	5
	CO Poisoning	0	0	0
	Lead poisoning	0	0	0
	Hearing Loss	0	0	0
Immunization	VAERS	0	0	0
	Influenza	0	0	0

Notes:
**One case represents disease contracted outside the ROK*
+*ROK refers to cases of malaria diagnosed in Korea; US refers to personnel who developed malaria returning to the United States*
Please refer to the reverse of the 18th MEDCOM IHO Reportable Events Worksheet for a complete listing of reportable events. This form is available at https://www.seoul.amedd.army.mil/Pm/Forms/Reportdisform18medFeb02.pdf.

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Views and opinions expressed are not necessarily those of the 18th MEDCOM or the Department of the Army

We're on the Web!

See us on the 18th MEDCOM Homepage!

Upcoming Events

Tobacco Cessation

AREA I Classes:
Dec 9, 16, 19 (Casey)
Dec 10, 17, 20 (CRC)
Dec 19 (Cp Essayons)

AREA II Classes:
5, 9, 12, 18 December
This four-week program is held regularly at various locations across the peninsula. To register, contact your Area Health Promotion Coordinator (see below).

Freedom from Tobacco Facilitator Training
28 January
Bldg 5447, Yongsan SP

Learn to be your own Tobacco-Use Cessation group facilitator! Contact Ms. OkHee Suh at DSN 736-3029 or via email for more information and class reservation.

Field Sanitation Team Training

16-20 December
13-17 January
702nd MSB, Cp Casey

2-6 December
3-7 February
5th PM Detachment, Yongsan

Reserve slots for your unit now!!. For more information on Casey classes, contact SSG Rivera at DSN 730-2078. For more information on Yongsan classes, call DSN 725-4929.

Food Handlers Course
12 December
23 January

Learn proper food handling techniques. To register, contact SSG Rivera at DSN 730-2078.

Community Healthcare Forum

17January, 10 AM
121 Hospital
2nd Floor Classroom
Have questions or concerns about your healthcare? Speak up at the community forum.

About Our Organization...

The mission of the 18th MEDCOM Preventive Services Directorate is to: Maintain oversight of a comprehensive Preventive Medicine Program; promote and maintain the fighting force at maximum effective strength; maintain the physical well being of all personnel; and finally, to establish practical measures for the preservation and promotion of health and the prevention of disease and injury. ⌘

Clip and Save!!

Health Promotion Coordinators

Your Area Health Promotion Coordinator can provide four one-hour tobacco cessation group sessions monthly at your clinic! Other educational courses are available, including Weight Management Programs, STD Prevention and much, much more!

Area I	**Mr. Kenneth Cobb**	**730-3542**
Area II	**Ms OkHee Suh**	**736-3029/6693**
Area III	**Vacant**	
Area IV	**Ms. Victoria Knighton**	**764-5213**

EAMC FORM 600, NOV 2001

18th MEDCOM IHO REPORTABLE EVENTS WORKSHEET

PATIENT DATA

Last Name | **First Name**

FMP | **Social Security Number** ___ – ___ – ___ | **Date of Birth** Day / Month / Year

Residence - City or Location (*e.g.* Yongsan)

Gender: ○ MALE ○ FEMALE

APO

Race: ○ WHITE ○ ASIAN ○ BLACK ○ AM. INDIAN ○ HISPANIC ○ OTHER

Category* | **Grade** | **Unit** | **UIC**

Unit Location - (*e.g.* CP Casey) | **Duty Phone** ___ – ___

REPORTING SOURCE

Submitting Health Care Provider: _____

CHN/Clinic: _____

Phone #: _____

Comments/Additional Information:

1. Refer to the list on the back of this form to determine if a patient's disease/condition is reportable.
2. Complete one worksheet per disease (vs. per patient in cases of multiple diagnoses) while the patient is still present.
3. Indicate if the disease/condition is suspected or confirmed and what testing has been done (i.e., culture, serology, etc.). Community Health Nursing personnel will help track the results.
4. Diseases/conditions followed by an asterisk (*) also require immediate telephone reporting to your Area Community Health Nurse to initiate disease control measures (Area I 730-6796, Area II 725-5128, Area III 753-8355, Area IV 764-4819). After duty hours, contact the Community Health Nursing Consultant through the 121st General Hospital Emergency Department.
5. Forward completed worksheets to Commander, 18th MEDCOM, Attn: EAMC-CHN, APO AP, 96205-0020 or FAX to 736-3028.

HEAT OR COLD INJURIES ONLY

Ambient temperature ___.__ ^{0}C/^{0}F

Wind Speed ___ MPH

Rectal temperature ___.__ ^{0}C/^{0}F

WBGT ___.__

Body Part or Organ System Affected:

P3 Profile initiated for heat Exhaustion ○Yes ○No

Previous Heat or Cold injury: ○Yes ○No

Multi-system involement: ○Yes ○No

Medication supplement use in 24^0 before evernt? ○Yes * ○No (If yes, list under"comments") ○Unknown

MALARIA CASES ONLY

Pertinent Travel: ○ YES ○ NO

Country #1 _____

Country #2 _____

Malaria Chemoprophylaxis: ○ YES ○ NO

Prophylaxis #1 _____

Prophylaxis #2 _____

18th MEDCOM IHO REPORTABLE EVENTS WORKSHEET

DISEASE DATA

Diagnosis (See Reverse for Malaria & Heat/Cold Injuries)

Onset of Symptoms

Day ☐☐ Month ☐☐ Year ☐☐☐☐

Confirmed:
- ○ YES
- ○ NO
- ○ PENDING

Method of Confirmation:
- ○ CLINICAL
- ○ CULTURE
- ○ SLIDE
- ○ BIOPSY
- ○ SEROLOGY
- ○ OTHER

Admitted:
- ○ YES
- ○ NO

Date of Admission

Day ☐☐ Month ☐☐ Year ☐☐☐☐

REPORTABLE CONDITIONS LISTS

TRI-SERVICE

Amebiasis
Anthrax
Biological warfare agent exposure
Botulism
Brucellosis
Campylobacter
Carbon monoxide poisoning
Chemical agent exposure
Chlamydia
Cholera*
Coccidiomycosis
Cold injury, frostbite
Cold injury, hypothermia
Cold injury, immersion type
Cold weather injury, unspecified
Cryptosporidiosis*
Cyclospora
Dengue fever*
Diphtheria*
E. coli O154:H7*
Ehrlichiosis
Encephalitis*
Filariasis
Giardiasis
Gonorrhea
Haemophilus influenza, invasive
Hantavirus infection
Heat exhaustion
Heat stroke
Hemorrhagic fever
Hepatitis A, Acute
Hepatitis B, Acute*
Hepatitis C, Acute
Influenza
Lead poisoning
Legionellosis
Leishmaniasis, cutaneous*
Leishmaniasis, mucocutaneous*
Leishmaniasis, unspecified*
Leishmaniasis, visceral*
Leprosy
Leptospirosis
Listeria
Lyme disease
Malaria, falciparum
Malaria, malariae
Malaria, ovale
Malaria, unspecified
Malaria, vivax
Measles*
Meningococcal dis., Meningitis
Meningicoccal dis., Septicemia
Mumps*
Pertussis*
Plague*
Pneumococcal pneumonia
Poliomyelitis*
Q fever
Rabies, human
Relapsing fever
Rheumatic fever, Acute
Rift Valley fever
Rocky Mountain Spotted fever
Rubella*
Salmonellosis
Schistosomiasis*
Shigellosis*
Smallpox
Streptococcus, Grp. A, invasive
Syphilis, congenital
Syphilis, latent
Syphilis, late (tertiary)
Syphilis, primary/secondary
Syphilis, unspecified
Tetanus*
Toxic shock syndrome
Trichinosis
Trypanosomiasis
Tuberculosis, pulmonary
Tularemia
Typhoid fever
Typhus fever
Urethritis, non-gonococcal
Vaccine, adverse event
Varicella, active duty only
Yellow Fever

KOREA-SPECIFIC

Asbestosis
Chancroid
Contagious disease in day care
Granuloma inguinale
HIV/AIDS
Lymphogranuloma venereum
Melioidosis
Pelvic inflammatory disease
Rash outbreak
Rhabdomyolysis
Trichomoniasis
URI outbreak

KOREA Ministry of Health and Welfare Required

African sleeping sickness*
Angiostrongyliasis
Babesiosis*
Chagas diasese
Dengue fever
Ebola fever*
Echinococcosis
Gnathostomiasis
Lassa fever*
Marburg fever*
Newly emerging syndromes*
- Acute neurological disorders
- Acute respiratory symptom
- Acute diarrhea
- Acute hemorrhagic fever
- Acute jaundice

Paratyphoid fever*
Pinta*
Scarlet fever
Vancomycin Resistant Staphlococcus Aureus
Vibrio vulnificus infection
Yaws*

CATEGORY CODES

A11	Army active duty	F41	DEP Air Force active duty	N11	Navy active duty
A31	Army retired	F43	DEP Air Force retired	N31	Navy retired
A41	DEP Army active duty	M11	Marine active duty	N41	DEP Navy active duty
A43	DEP Army retired	M31	Marine retired	N43	DEP Navy retired
F11	Air Force active duty	M41	DEP Marine active duty	K59	Civilian/DEP Civilian
F31	Air Force retired	M43	DEP Marine retired	K79	Local National

PRIVACY ACT INFORMATION

Authority: Section 133, Title 10, United States Code (10 USC 133)
Purpose: The purpose of this form is to compile relevant patient information concerning communicable diseases and injuries occurring among Department of Defense personnel and family members stationed or operating in Korea.
Routine Uses: Used to monitor for the emergence of specific communicable diseases or outbreaks which pose a public health threat and to prepare data for inclusion in the U.S. Army Medical Surveillance System.
Disclosure: The requested information is mandatory for compliance with U.S., Host Nation and Army disease reporting laws and regulations. Failure to provide the requested information will prevent effective public health action and contribute to higher disease and injury rates.